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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/970,702

Applicant(s)

TAKEI ET AL.

Examiner

MARCUS T. RILEY

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-27 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This office action is responsive to applicant's remarks received on July 21, 2010. **Claims 1-27** remain pending.

Response to Arguments

2. Applicant's arguments with respect to amended **claims 1, 4, 7, 10, 13, 16, 22 & 24-26** filed on July 21, 2010 have been fully considered but they are not persuasive.

A: Applicant's Remarks

For Applicant's remarks see "*Applicant Arguments/Remarks Made in an Amendment*" see filed July 21, 2010.

A: Examiner's Response

Applicant's has amended independent claims 1, 4, 7, 10, 13 & 16 to include the limitation separating the finishing specifics included in the job ticket received by the receiver into those of the finishing specifics to be performed by the on-line printer and those of the finishing specifics to be performed by the off-line finishing device, wherein those of the finishing specifics to be performed by the on-line printer are assigned to the on-line printer, and those of the finishing specifics to be performed by the off-line finishing device are assigned to the off-line finishing device.

Examiner understands applicant's argument but respectfully disagree. Farrell '426 at Fig. 2, discloses a sorter, Image Output Controller 28. For example, Column 4, lines 25-42 explains that with reference to Fig. 2, upon a determination to proceed with the print job, the system controller 24 directs an image output controller 28 to synchronize and output the image to the printer section 16.

Farrell '426 at Column 5, lines 9-22 and Fig. 3, Decision Blocks 44 & 64 discloses separating the finishing specifics included in the job ticket received by the receiver into those of the finishing specifics to be performed by the on-line printer. For example, referring to decision block 44, if the attached finishing element 18 is compatible with the desired finishing instruction, the print job may proceed conventionally as illustrated in step 64.

Farrell '426 at Column 4, lines 13-24 and Decision Blocks 44 & 54 disclose separating the finishing specifics included in the job ticket received by the receiver into and those of the finishing specifics to be performed by the off-line finishing device. For example, if the finishing element 18 is off line, it is not compatible with the desired finishing instruction and otherwise unavailable. Upon a determination that the desired finishing is unavailable, the system controller can substitute alternate finishing instructions which are compatible with available finishing equipment (substitute literal finishing). Regardless of the substitute abstract finishing used, supplying a representation of the desired finishing instructions make later off equipment or off site finishing more likely to agree with the originally intended finishing instructions.

Moreover, Farrell '426 at Column 4, lines 13-24; Column 4, line 43 thru Column 5, line 8; Column 5, lines 9-22 discloses wherein those of the finishing specifics to be performed by the on-line printer are assigned to the on-line printer, and those of the finishing specifics to be

performed by the off-line finishing device are assigned to the off-line finishing device. For example, Steps 40-64 explains how a job may be sorted and prepared with the finishing capabilities existing on the print machine or substitute finishing wherein the system controller 24 will retrieve alternate finishing instructions which are compatible with the finishing installed element 18 as in step 50.

As a result, Applicant's Application is not in condition for allowance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

3. **Claim(s) 7-9, 25** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 7-9 & 25 defines a **computer readable medium** embodying functional descriptive material. However, the claim does not define a non-transitory computer-readable medium and is thus non-statutory for that reason (i.e., “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. The examiner suggests amending the claim(s) to embody the program on “a non-transitory computer-readable medium” or equivalent; assuming the specification does NOT define the computer readable medium as a “signal”, “carrier wave”, or “transmission medium” which are deemed non-statutory (refer to “note” below). Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 16-19 & 22-26** are rejected under 35 U.S.C. 102(e) as being anticipated by Farrell (US 6,873,426 B1 hereinafter, Farrell '426).

Regarding claim 1; Farrell '426 discloses a printing system (Fig. 2, Printer 10) comprising an on-line client (Fig. 1, Client Interface 26, i.e. Yet another advantage of the present invention resides in the easy transition from on-line to off-line finishing. Column 3, lines 16-17),

a print server (Server Not Shown i.e. The substitution could occur at the printer or in an intermediate point, such as at a network print server. Column 1, lines 62-64) and a printer (Fig. 1, Printer 16) capable of performing a first set of finishing specifications (Fig. 3, Step 64 i.e. The method includes receiving a first finishing instruction corresponding to a first finishing operation associated with a set of output media. Column 1, lines 55-64),

as well as an off-line finishing device (Fig. 2, Finisher 18, i.e. Finisher 18 may be online or offline. Column 3, lines 16-17) capable of performing a second set of finishing specifications (Fig. 3, Step 54 i.e. Based on a determination to process the set of output media by other than the first finishing operation, a second finishing instruction is substituted which corresponds to a second finishing operation. Column 1, lines 55-64),

wherein the print server includes: first memory means (i.e. Print System 10 consists of a memory, not shown) for storing the first set of finishing specifications of the on-line printer and the second set of finishing specifications of the off-line finishing device as well as information regarding options installed thereon (i.e. There is easy transition from on-line to off-line finishing within Print System 10 and Finisher 18. The alternate finishing instructions can reside, for example, in the finishing element 18 itself or within a memory in the system 10. Column 3, lines 16-17 and Column 5, lines 9-22);

a receiver (Fig. 2, System Controller 24) for receiving from the client a job including data pertaining to a job ticket that includes at least finishing specifics for printing to be executed (Fig. 2

i.e. System Controller 24 extracts and receives the desired finishing instructions for the particular print job from user interface 26. Column 3, line 55 thru Column 4, line 8);

a sorter (Fig. 2, Image Output Controller 28) for, based on the first set and second set of finishing specifications that are stored in the first memory (i.e. With reference to Fig. 2, upon a determination to proceed with the print job, the system controller 24 directs an image output controller 28 to synchronize and output the image to the printer section 16. Column 4, lines 25-42),

separating the finishing specifics included in the job ticket received by the receiver into those of the finishing specifics to be performed by the on-line printer (Fig. 3, Decision Blocks 44 & 64 i.e. Referring now to decision block 44, if the attached finishing element 18 is compatible with the desired finishing instruction, the print job may proceed conventionally as illustrated in step 64. Column 5, lines 9-22)

and those of the finishing specifics to be performed by the off-line finishing device (Fig. 3, Decision Blocks 44 & 54 i.e. Note: If the finishing element 18 is off line, it is not compatible with the desired finishing instruction and otherwise unavailable. Upon a determination that the desired finishing is unavailable, the system controller can substitute alternate finishing instructions which are compatible with available finishing equipment (substitute literal finishing). Regardless of the substitute abstract finishing used, supplying a representation of the desired finishing instructions make later off equipment or off site finishing more likely to agree with the originally intended finishing instructions. Column 4, lines 13-24)

wherein those of the finishing specifics to be performed by the on-line printer are assigned to the on-line printer, and those of the finishing specifics to be performed by the off-line finishing device are assigned to the off-line finishing device (i.e. Fig. 3 Steps 40-64, i.e. Steps 40-64 explains how a job may be sorted and prepared with the finishing capabilities existing on the print machine or substitute finishing wherein the system controller 24 will retrieve alternate finishing instructions which are compatible with the finishing installed element 18 as in step 50. Column 4, lines 13-24; Column 4, line 43 thru Column 5, line 8; Column 5, lines 9-22);

a setting unit (Fig. 3, Steps 44 & 64) for setting in the on-line printer, parameters for the finishing specifics to be performed by the on-line printer as separated by the sorter and assigned to the on-line printer (Fig. 3, Steps 44 & 64. i.e. Steps 44 & 64 shows how the parameters are set to a job that may be

prepared with the finishing capabilities existing on the print machine. See also column 5, lines 9-38; and column 4, line 43 thru column 5, line 8);

a creating unit (Fig. 3, Steps 50-64) for creating data for a finishing device job ticket that includes the finishing specifics to be performed by the off-line finishing device separated by the sorter and assigned to the off-line finishing device (Fig. 3, Steps 50, 52, 54 and 64. i.e. Once the alternate finishing instruction is retrieved, the system controller 24 can substitute the alternate finishing instruction for the entire finishing instruction, as illustrated in step 52. In this case, the print job can be completed with the alternate finishing instruction, executed by the compatible finishing equipment 18 on the print system, as illustrated in step 54. Column 5, lines 16-22);

Regarding claim 2; Farrell '426 discloses a printing system where the print server further includes a transmitter (Fig. 3, Step 54) for transmitting to the on-line printer the data pertaining to the finishing device job ticket created by the creating unit so as to print the finishing device job ticket (Fig. 3, Steps 50, 52, 54 and 64. i.e. Data is transmitted from the Image Output Control to the printer 16 in Figure 2. The system controller 24 can substitute the alternate finishing instruction for the entire finishing instruction, as illustrated in step 52. In this case, the print job can be completed with the alternate finishing instruction, executed by the compatible finishing equipment 18 on the print system, as illustrated in step 54." Column 5, lines 16-22);

Regarding claim 4, 7, 10, 13, 16, 22 & 24-26; Claims 4, 7, 10, 13, 16, 22 & 24-26 contains substantially the same subject matter as claim 1. Therefore, claims 4, 7, 10, 13, 16, 22 & 24-26 are rejected on the same grounds as claim 1. Additionally, claim 7 includes a computer-readable medium containing a computer program to be used in the printing system. Farrell '426 discloses wherein the networked personal computers may be instructed to supply both job data and user preferences. Thus, it may be inferred that Farrell '426 discloses a computer-readable medium containing a computer program to be used in the printing system (i.e. Networked personal computers may be instructed to supply both job data and user preferences. Column 3, line 66 thru column 4, line 2).

Regarding claim 5, 8, 11, 14, 17 & 23; Claims 5, 8, 11, 14, 17 & 23 contains substantially the same subject matter as claim 2. Therefore, claims 5, 11 & 14 are rejected on the same grounds as claim 2. Additionally, claim 8 includes a computer-readable medium containing a computer program. Farrell '426 discloses wherein the networked personal computers may be instructed to supply both job data and user preferences. Thus, it may be inferred that Farrell '426 discloses a computer-readable medium containing a computer program (i.e. Networked personal computers may be instructed to supply both job data and user preferences. Column 3, line 66 thru column 4, line 2).

Regarding claim 18; Farrell '426 discloses where the information on second group of the specifics is also sent to the printer (Fig. 3, Steps 52 & 54, i.e. The system controller 24 can substitute the alternate finishing instruction for the entire finishing instruction, as illustrated in step 52. In this case, the print job can be completed with the alternate finishing instruction, executed by the compatible finishing equipment 18 on the print system, as illustrated in step 54. column 5, lines 16-22).

Regarding claim 19; Farrell '426 discloses where the information on the second group of specifics is sent to the printer in a form of data to be printed by the printer (Fig. 3, Steps 52 & 54, i.e. The system controller 24 can substitute the alternate finishing instruction for the entire finishing instruction, as illustrated in step 52. In this case, the print job can be completed with the alternate finishing instruction, executed by the compatible finishing equipment 18 on the print system, as illustrated in step 54. Column 5, lines 16-22).

Regarding claim 27; Farrell '426 wherein the on-line printer is capable of performing finishing procedures (Fig. 2, Print Module 34, i.e. Print Module 34 may execute printing while on-line via scanner 32. Column 4, lines 25-42).

and the off-line finishing device is not connected to the on-line printer or the on-line print server (Fig. 2, Finisher 18, i.e. Finisher 18 may be online or offline. Column 3, lines 16-17),

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claim 3, 6, 9, 12, 15 & 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell '426 in combination with Jeyachandran et al. (US 6,567,176 B1 hereinafter, Jeyachandran '176).

Regarding claim 3; Farrell '426 discloses a printing system as claimed in claim 2, further comprising an on-line scanner (Raster Output Scanner 32) and wherein the print server further includes:

second memory (Fig. 2, Disk) means for storing job information and user information included in the job ticket received by the receiving means (See Figure 3 Steps 48, 50, 52 & 54. i.e. The alternate finishing instructions can reside, for example, in the finishing element 18 itself within a memory in the system 10. Column 5, lines 11-22);

a reader for reading the job information from the data obtained by reading via the scanner the finishing device job ticket printed by the on-line printer (See Figure 1 wherein #12 shows a typical raster scanner input. Figure 2 shows #32 as the Raster Scanner Output (ROS). Machine-readable and/or human readable descriptions of the desired finishing are printed on the edge of oversized output media or on pages containing job content. Column 4, lines 25-36 & column 5, lines 23-38).

Farrell '426 does not expressly disclose a notifier for calling the user information stored in the second memory means based on the job information read by the reading means and notifying the client of job completion based on the user information.

Jeyachandran '176 discloses a notifier (Fig. 2 Execution Notification Unit 210) for calling the user information stored in the second memory means based on the job information read by the reading means and notifying the client of job completion based on the user information (i.e. At Fig. 15, Step S163 a user is notified that the instructed job was performed. Moreover, each device has a memory and the properties of each device are stored in a memory in each device, or in the memory of the server that manages each device. Column 21, lines 7-15 and Column 25, lines 55-61).

Farrell '426 and Jeyachandran '176 are combinable because they are from same field of endeavor of printer systems (Jeyachandran '176 at "*Field of Invention*").

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the printer system as taught by Farrell '426 by adding notifying means as taught by Jeyachandran '176. The motivation for doing so would have been because it advantageous to notify a user in order to enhance workmanship and to minimize and eliminate the waste of time. Therefore, it would have been obvious to combine Farrell '426 with Jeyachandran '176 to obtain the invention as specified in claim 1.

Regarding claims 6, 9, 12 & 15; Claims 6, 9, 12 & 15 contain substantially the same subject matter as claim 3. Therefore, claim 6, 9, 12 & 15 are rejected on the same grounds as claim 3. Additionally, claim 9 includes a computer-readable medium containing a computer program to be used in the printing system. Farrell '426 discloses wherein the networked personal computers may be instructed to supply both job data and user preferences. Thus, it may be

inferred that Farrell '426 discloses a computer-readable medium containing a computer program to be used in the printing system (i.e. Networked personal computers may be instructed to supply both job data and user preferences. Column 3, line 66 thru column 4, line 2).

Regarding claim 20; Jeyachandran '176 discloses where the form of data complies with a page description language (i.e. The information processing apparatus comprises: conversion control means for controlling a conversion of the information that is received by the reception means into information, described using a description language, that is to be processed by the processing means. Column 5, lines 16-22).

8. **Claim 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell '426 in combination with Jeyachandran '176 as applied to claim 16 above, and further in view of Trovinger et al. (US 6,708,967 B1 hereinafter, Trovinger '967).

Regarding claim 21; Farrell '426 as modified does not expressly disclose where the finishing device is an off-line finishing device that is disconnected from the client, the print server, and the printer.

Trovinger '967 discloses where the finishing device is an off-line finishing device that is disconnected from the client, the print server, and the printer (Fig. 6 & 7, i.e. Figs. 6 & 7 shows an on offline booklet maker not connected to a printer or server. Column 3, lines 26-28).

Farrell '426 and Trovinger '967 are combinable because they are from same field of endeavor of printer systems (Trovinger '967 at "*Field of Invention*").

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the printer system as taught by Farrell '426 by adding an off- line finishing device as taught by Trovinger '967. The motivation for doing so would have been because it advantageous to provide an easy transition from on-line to off-line finishing. Therefore, it would

have been obvious to combine Farrell '426 with Trovinger '967 to obtain the invention as specified in claim 16.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCUS T. RILEY whose telephone number is (571)270-1581. The examiner can normally be reached on Monday - Friday, 7:30-5:00, est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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